

CITY OF GOODYEAR TRAFFIC SIGNAL PLAN NOTES
(Revised 6-10-15)

1. ALL MATERIALS AND INSTALLATION SHALL CONFORM TO THE ADOT STANDARD SPECIFICATIONS, CURRENT EDITION, AND THE ADOT "TRAFFIC SIGNALS AND LIGHTING" STANDARD DRAWINGS, CURRENT EDITION, AS MODIFIED BY THE CITY OF GOODYEAR. TRAFFIC SIGNAL STRUCTURES AND FOUNDATIONS SHALL CONFORM TO CURRENT CITY OF TEMPE STANDARDS FOR MODULAR TRAFFIC SIGNAL STRUCTURES AND APPROVED FOR USE BY THE CITY OF GOODYEAR. DRAWINGS OF ANY NON-STANDARD FOUNDATIONS OR STRUCTURES SHALL BE SEALED BY AN ARIZONA REGISTERED STRUCTURAL ENGINEER AND SUBMITTED TO THE CITY OF GOODYEAR TRAFFIC ENGINEER. THESE DRAWINGS MUST BE APPROVED BY THE CITY TRAFFIC ENGINEER IN ORDER TO BE USED ON PROJECTS IN THE CITY OF GOODYEAR.
2. THE CONTRACTOR SHALL PROVIDE 4 SETS OF EQUIPMENT SUBMITTALS TO BE APPROVED BY THE CITY OF GOODYEAR TRAFFIC ENGINEER PRIOR TO INSTALLATION. CONTACT: GOODYEAR ENGINEERING DEPARTMENT (623) 882-7979.
3. THE CONTRACTOR SHALL WORK FROM THE CITY APPROVED PLAN SET.
4. THE CONTRACTOR SHALL HOLD A PRECONSTRUCTION MEETING WITH KEY STAKEHOLDERS, WHICH INCLUDES OWNERS, INSPECTORS, UTILITY COMPANIES, BARRICADE AND POLICE SERVICES BEFORE THE START OF WORK.
5. THE LOCATION OF UTILITIES AND EXISTING CONDUITS AND SLEEVES SHOWN ON THE PLANS IS AS PROVIDED BY VARIOUS SOURCES. ALL INVOLVED UTILITIES MAY NOT BE SHOWN ON THE PLANS. PER SECTION 730-6 OF THE ADOT STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITIES FOR THEIR EXACT LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITY. IN ADDITION, THE CONTRACTOR SHALL PERFORM NECESSARY POTHOLING TO DETERMINE LOCATION, SIZE AND OWNERSHIP OF UTILITIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND INSPECTIONS, INCLUDING COORDINATION WITH THE CITY OF GOODYEAR ENGINEERING DEPT, AT (623) 882-7979 AND APS FOR UTILITY CONNECTION. CONTRACTOR SHALL CONTACT THE ENGINEERING INSPECTOR A MINIMUM OF 3 WORKING DAYS PRIOR TO BEGINNING WORK, AND AT MILESTONES SPECIFIED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.

7. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE CITY OF GOODYEAR ENGINEERING PROJECT MANAGER, AND NOT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, IS SUBJECT TO REMOVAL AND REPLACEMENT BY THE CONTRACTOR AT NO EXPENSE TO THE CITY.
8. POLE, CABINET, CONDUIT AND PULL BOX LOCATIONS AND ORIENTATIONS SHOWN ON THE PLANS ARE SUBJECT TO FIELD ADJUSTMENT BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR AS A RESULT OF FIELD CONDITIONS. THESE ADJUSTMENTS SHALL OCCUR AT NO ADDITIONAL EXPENSE TO THE CITY. THE CONTRACTOR SHALL OBTAIN BLUE STAKE MARKINGS, MARK TENTATIVE LOCATIONS OF FACILITIES, RIGHT OF WAY AND FINAL GRADE AT STRUCTURE LOCATIONS, AND GET APPROVAL FROM THE CITY OF GOODYEAR ENGINEERING INSPECTOR PRIOR TO EXCAVATION AND FIELD CONSTRUCTION. ITEMS PLACED PRIOR TO THIS APPROVAL ARE SUBJECT TO REMOVAL AND REPLACEMENT BY THE CONTRACTOR AT NO COST TO THE CITY.
9. ANY EXISTING IMPROVEMENTS, SIDEWALKS, RAMPS, LANDSCAPING AND IRRIGATION SYSTEMS DISRUPTED OR DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THIS CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE CITY. CONTRACTOR SHALL BE RESPONSIBLE, TO THE SATISFACTION OF THE CITY OF GOODYEAR ENGINEERING INSPECTOR, FOR THE REPAIRS AND REPLACEMENT OF ANY PRIVATE OR PUBLIC PROPERTIES OR FACILITIES DAMAGED, MISPLACED OR RELOCATED DURING THIS CONSTRUCTION.
10. ELECTRICAL SERVICE SHOWN ON PLAN IS BASED ON BEST AVAILABLE INFORMATION AT DESIGN AND IS SUBJECT TO VERIFICATION BY THE CONTRACTOR WITH APS PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE PREPARED TO ADJUST SERVICE LOCATION IF REQUIRED BY APS. CONTACT BOBBY GARZA WITH APS AT (602) 371-7989 FOR ELECTRICAL SERVICE. ELECTRICAL SERVICE SHALL BE FULLY METERED FOR SIGNALS AND LIGHTING PER APS REQUIREMENTS. SERVICE ADDRESS SHALL BE AS SHOWN ON THE PLANS OR AS PROVIDED BY THE ENGINEERING INSPECTOR. THE ADDRESS LABEL SHALL BE ENGRAVED TYPE USING BLOCK LETTERS. THE ELECTRICAL SERVICE SHALL NOT BE LOCATED WITHIN 20 FEET OF THE SIGNAL CONTROL CABINET.
11. ELECTRICAL SERVICE SHALL BE 100 AMP, 120/240V, SINGLE-PHASE, FULLY METERED. METER PEDESTAL SHALL CONTAIN CONTRACTOR SUPPLIED AND INSTALLED BREAKERS OF ADEQUATE SIZE FOR LOADS (LABELED IN TYPE SET) SHOWN ON THE PLANS, PLUS REASONABLE FUTURE EXPANSION, AND APPROVED FOR USE BY APS. LUMINARIES SHALL BE 240V; ILLUMINATED STREET NAME SIGNS SHALL BE 120V.

METER PEDESTAL SHALL CONTAIN PHOTOCELL AND CONTACTOR.
INSTALL PEC, 20 AMP FUSED LIGHTING CONTACTOR.

12. ILLUMINATED STREET NAME SIGN MESSAGE/TEXT WILL BE DETERMINED BY THE CITY OF GOODYEAR AS PART OF THE EQUIPMENT SUBMITTAL PROCESS.
13. CITY SHALL INSPECT ALL POLE FOUNDATIONS PRIOR TO PLACEMENT OF CONCRETE. CONCRETE SHALL BE MAG CLASS AA, 4,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS. THE CONTRACTOR SHALL PROVIDE A COPY OF EACH CONCRETE LOAD TICKET TO THE ENGINEERING INSPECTOR. THE CONCRETE SHALL BE PLACED PER SECTION 506.6 OF THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, WHICH STATES THAT FRESH CONCRETE SHALL NOT BE PERMITTED TO FALL FROM A HEIGHT OF GREATER THAN SIX FEET WITHOUT THE USE OF ADJUSTABLE LENGTH PIPES OR ELEPHANT TRUNKS.
14. EACH FOUNDATION THAT SUPPORT A MASTARM STRUCTURE SHALL BE TESTED FOR STRENGTH AT SEVEN, FOURTEEN AND 28 DAYS OR UNTIL 4000 PSI IS ACHIEVED. A COPY OF THE TESTING RESULTS SHALL BE SUBMITTED TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR BEFORE MAST ARM STRUCTURES CAN BE INSTALLED.
15. CONTRACTOR SHALL HAVE AN INDEPENDENT CERTIFIED TESTING AGENCY PERFORM A THREE POINT GROUND RESISTANCE TEST AT ELECTRICAL SERVICE, SIGNAL CABINET AND FOR EACH INSTALLED GROUND ROD AND POLE FOUNDATION GROUND COIL IN ACCORDANCE WITH ADOT SUBSECTION 732-3.03, & SUBMITTED TO THE CITY ENGINEERING INSPECTOR FOR APPROVAL.
16. EXISTING CONDUIT OR SLEEVES MAY EXIST WITHIN THE PROJECT AND MAY BE USED WITH THE APPROVAL OF THE CITY OF GOODYEAR ENGINEERING INSPECTOR. IF USED, CONDUITS SHALL BE PROOFED IN THE PRESENCE OF THE CITY OF GOODYEAR ENGINEERING INSPECTOR AT NO EXPENSE TO THE CITY. CONTRACTOR SHALL MANDREL AND CLEAN ANY EXISTING CONDUITS TO BE REUSED WITH A RAG PULLED THROUGH THE CONDUIT PRIOR TO CONDUCTOR INSTALLATION.
17. STREET CROSSING CONDUITS SHALL CONSIST OF THREE 3" SCHEDULE 80 CONDUITS. TYPICALLY, ONE CONDUIT IS USED EXCLUSIVELY FOR VIDEO DETECTION & PREEMPTION CABLES, ONE IS USED FOR ELECTRICAL CIRCUITS AND ONE IS A SPARE WITH INSULATED BOND.

18. THE CONTROLLER CABINET AND ITS COMPONENTS SHALL BE DELIVERED TO THE CITY OF GOODYEAR TRAFFIC OPERATIONS FACILITY AT 200 S. CALLE-DEL-PUEBLO FOR TESTING A MINIMUM OF THREE WORKING DAYS PRIOR TO INSTALLATION.
19. THE CONTROLLER CABINET SHALL BE WIRED AND LABELED WITH THE SAME PHASE NUMBER DESIGNATIONS, FOR INITIAL AND FUTURE PHASES, AS SHOWN IN THE PHASE MOVEMENT DIAGRAM. EACH CONNECTOR SHALL HAVE ALL PINS WITHIN THE CONNECTOR BROUGHT TO CABINET TIE POINTS. CITY WILL REJECT ANY CONTROL CABINET NOT WIRED ACCORDINGLY.
20. PEDESTRIAN PUSH BUTTONS AND ASSOCIATED ACCESS SHALL CONFORM TO ADA REQUIREMENTS. SIDEWALK PADS SHALL BE PROVIDED AS NECESSARY, AT NO ADDITIONAL COST TO THE CITY, TO INSURE SIDEWALK ACCESS TO FACE OF POLES WITH PEDESTRIAN BUTTONS. THE SIDEWALK LAYOUT SHALL BE BASED ON THE FINAL POLE LOCATIONS AND SHALL BE APPROVED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.
21. BACKFILLING SHALL NOT BE STARTED UNTIL CONDUIT HAS BEEN INSPECTED AND APPROVED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.
22. ALL PULL BOXES SHALL BE ADOT-APPROVED BRANDS AND MODELS OF POLYMER BOXES, LIDS, EXTENSIONS & LOCKS (PENTA HEAD BOLTS). TRAFFIC SIGNAL PULL BOX LIDS SHALL SAY "TRAFFIC SIGNAL" UNLESS OTHERWISE NOTED ON THE PLANS.
23. ALL PULL BOXES, AT PROJECT COMPLETION, SHALL BE LEFT IN CLEAN CONDITION, FREE OF DIRT AND DEBRIS. ALL PULL BOXES SHALL BE LEVEL AND ALL LIDS AND BOXES SHALL BE UNCRACKED/UNBROKEN, WITH APPROPRIATE LID WORDING.
24. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, SECTION VI, ANY ADOT SUPPLEMENTS, AND CITY OF PHOENIX TRAFFIC BARRICADE MANUAL, CURRENT EDITION. THE CITY REQUIRES A POLICE OFFICER AND MARKED POLICE VEHICLE TO BE PRESENT DURING CERTAIN CRITICAL PHASES OF CONSTRUCTION, AS DETERMINED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR. POLICE OFFICER ABSENCE AUTOMATICALLY CANCELS CRITICAL PHASES OF CONSTRUCTION UNTIL A POLICE OFFICER IS PRESENT.
25. CONTRACTOR SHALL SUBMIT AN ACTIVATION DATE TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR FOR APPROVAL. ONCE

APPROVED, THE ACTIVATION SHALL BE SHOWN IN THE CONSTRUCTION SCHEDULE. ACTIVATION SHALL NOT OCCUR ON MONDAY, FRIDAY OR WEEKENDS

26. CROSSWALKS AND STOP LINES SHALL BE IN PLACE AT THE TIME OF SIGNAL ACTIVATION. EXISTING STOP SIGNS, OPERATIONAL TRAFFIC SIGNALS AND ROADWAY LIGHTING, STREET NAME SIGNS AND POSTS SHALL REMAIN IN PLACE UNTIL ACTIVATION OF THE NEW SIGNAL, AT WHICH TIME THEY SHALL BE IMMEDIATELY REMOVED AND SALVAGED TO THE CITY OF GOODYEAR. DAMAGED OR LOST MATERIALS SHALL BE REPLACED IN KIND BY CONTRACTOR AT NO EXPENSE TO THE CITY.
27. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CITY OF GOODYEAR ENGINEERING INSPECTOR A TWO WEEK CONSTRUCTION SCHEDULE, UPDATED EACH FRIDAY DURING CONSTRUCTION. A COPY OF APPROVED PROJECT PLANS SHALL BE ON SITE AT ALL TIMES AND IN THE POSSESSION OF THE TRAFFIC SIGNAL CONTRACTOR DURING CONSTRUCTION. ANY DEVIATIONS FROM APPROVED PLANS SHALL BE APPROVED IN WRITING ON THE ON-SITE PLANS, BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.
28. AN IMSA-CERTIFIED TRAFFIC SIGNAL LEVEL II TECHNICIAN SHALL BE ON SITE AT ALL TIMES DURING CONSTRUCTION.
29. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING FINAL AS-BUILT DRAWINGS, ON MYLAR, AND SUBMITTING TO THE ENGINEERING INSPECTOR BEFORE FINAL ACCEPTANCE WILL BE GRANTED BY THE CITY OF GOODYEAR. MAST ARM HEIGHTS SHALL BE DOCUMENTED ON AS-BUILTS FOR EACH ARM.
30. CONTRACTOR SHALL FURNISH & INSTALL 4-CONDUCTOR AND/OR 7-CONDUCTOR IMSA CABLES FROM EACH SIGNAL FACE AND PEDESTRIAN BUTTON ON INDIVIDUAL STRUCTURES, TO THE BASE PANEL TERMINAL BLOCK, WHERE THEY WILL BE TERMINATED TO THE 20-CONDUCTOR IMSA CABLE THAT FEEDS THE STRUCTURE FROM THE CONTROLLER CABINET. PANELS AT ENDS OF MAST ARMS, AS WELL AS "FAR LEFT" SIDE STRUCTURES FOR AN APPROACH THAT DO NOT INITIALLY HAVE LEFT TURN ARROW DISPLAYS SHALL HAVE SEPARATE 4-CONDUCTOR CABLES RUN THROUGH THE STRUCTURE AND COILED AT THE FUTURE SIGNAL HEAD LOCATION. THESE CABLES SHALL BE COILED AND TAGGED IN THE BASE PANEL, FOR FUTURE CONNECTION TO ACTIVATE THE ARROWS WITHOUT THE NEED TO PULL ADDITIONAL CABLES. ALL FUTURE SIGNAL HEADS SHALL BE COVERED USING A MANUFACTURED SIGNAL HEAD COVER WITHOUT PRINT. SIGNAL HEADS SHALL BE COVERED USING A MANUFACTURED SIGNAL HEAD COVER WITHOUT PRINT IF NOT ACTIVATED WITHIN 30 DAYS OF INSTALL.

31. THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 17' FROM THE CROWN OF THE ROAD TO THE BOTTOM OF THE MAST ARM. DOCUMENTATION SHALL BE PROVIDED TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR ON SITE.
32. PRIOR TO SCHEDULING ACTIVATION OF THE TRAFFIC SIGNAL, THE CONTRACTOR SHALL CONDUCT A FIELD RING-OUT TEST IN THE PRESENCE OF THE ENGINEERING INSPECTOR AND TRAFFIC SIGNAL TECHNICIAN, TO VERIFY THAT ALL VEHICLE AND PEDESTRIAN INDICATIONS ILLUMINATE WITH THE APPROPRIATE CIRCUIT BY TOUCHING VOLTAGE TO FIELD CABLE CONDUCTORS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AND VERIFYING THE INTEGRITY AND CORRECT CONNECTION AND AIMING OF ALL DETECTION DEVICES, INCLUDING ALL VIDEO DETECTION, PREEMPTION DEVICES, AND PEDESTRIAN DETECTORS. IN ADDITION, THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL, WHICH INCLUDES ONE OR MORE OFF-DUTY POLICE OFFICERS, PRIOR TO SCHEDULING RING-OUT. CROSSWALK AND STOP BAR STRIPING SHOULD BE SCHEDULED TO OCCUR DURING RING-OUT. UPON COMPLETION OF A SUCCESSFUL RING-OUT. THE INTERSECTION WILL BE PLACED INTO FLASH MODE. UPON COMPLETION OF STRIPING OF STOP BARS AND CROSSWALKS, THE TRAFFIC SIGNAL WILL BE FULLY ACTIVATED.
33. ALL NEW OR MODIFIED INTERSECTION, ROADWAY AND UNDERDECK LIGHTING ALONG WITH ILLUMINATED STREET NAME SIGNS SHALL AFTER BEING ENERGIZED WILL HAVE A 72 HOUR BURN IN TEST PERIOD. START AND STOP TIMES SHALL BE RECORDED AND FORWARDED TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR. TESTING WILL BE COMPLETE WHEN ALL INTERSECTION, ROADWAY AND UNDERDECK LIGHTING ALONG WITH ILLUMINATED STREET NAME SIGNS HAVE BEEN OPERATIONAL CONCURRENTLY FOR 72 HOURS.
34. CONTRACTOR SHALL SUPPLY AND INSTALL A 36" X 36" "TRAFFIC CONTROL CHANGE" SIGN, WITH TWO ORANGE FLAGS PER SIGN, ON EACH APPROACH, AS DIRECTED BY THE ENGINEERING INSPECTOR. THE LOCATION OF EACH SIGN SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES REQUIREMENTS, AND MUST BE APPROVED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR. THE MOUNTING HEIGHT SHALL BE MINIMUM 7'-0". SIGNS SHALL BE IN PLACE AT THE TIME OF ACTIVATION OF THE SIGNAL AND REMAIN IN PLACE FOR 30 CONSECUTIVE DAYS, AT WHICH TIME THE CITY OF GOODYEAR WILL REMOVE AND SALVAGE.

35. A PUNCH LIST OF DISCREPANCIES WILL BE PROVIDED TO THE CONTRACTOR BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR AFTER ACTIVATION. AFTER THE PUNCH LIST IS SATISFIED A LETTER OF COMPLETION WILL BE ISSUED BY THE CITY OF GOODYEAR AND THE WARRANTY PERIOD SHALL BEGIN.
36. CITY FURNISHED EQUIPMENT MUST BE PICKED UP AT THE CITY OF GOODYEAR PUBLIC WORKS EQUIPMENT YARD. THE CONTRACTOR SHALL NOTIFY THE CITY OF GOODYEAR ENGINEERING INSPECTOR THREE WORKING DAYS IN ADVANCE OF EQUIPMENT PICK UP.
37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING/MARKING ALL PROJECT INSTALLED UNDERGROUND CONDUITS FOR TRAFFIC SIGNAL AND INTERCONNECT FROM THE TIME OF INSTALLATION UNTIL PROJECT ACCEPTANCE BY THE CITY.
38. ALL LOCATIONS FOR VEHICULAR SIGNAL HEADS ON MAST ARMS SHALL BE POPULATED WITH SIGNAL HEADS.